No. 662,831. Patented Nov. 27, 1900.

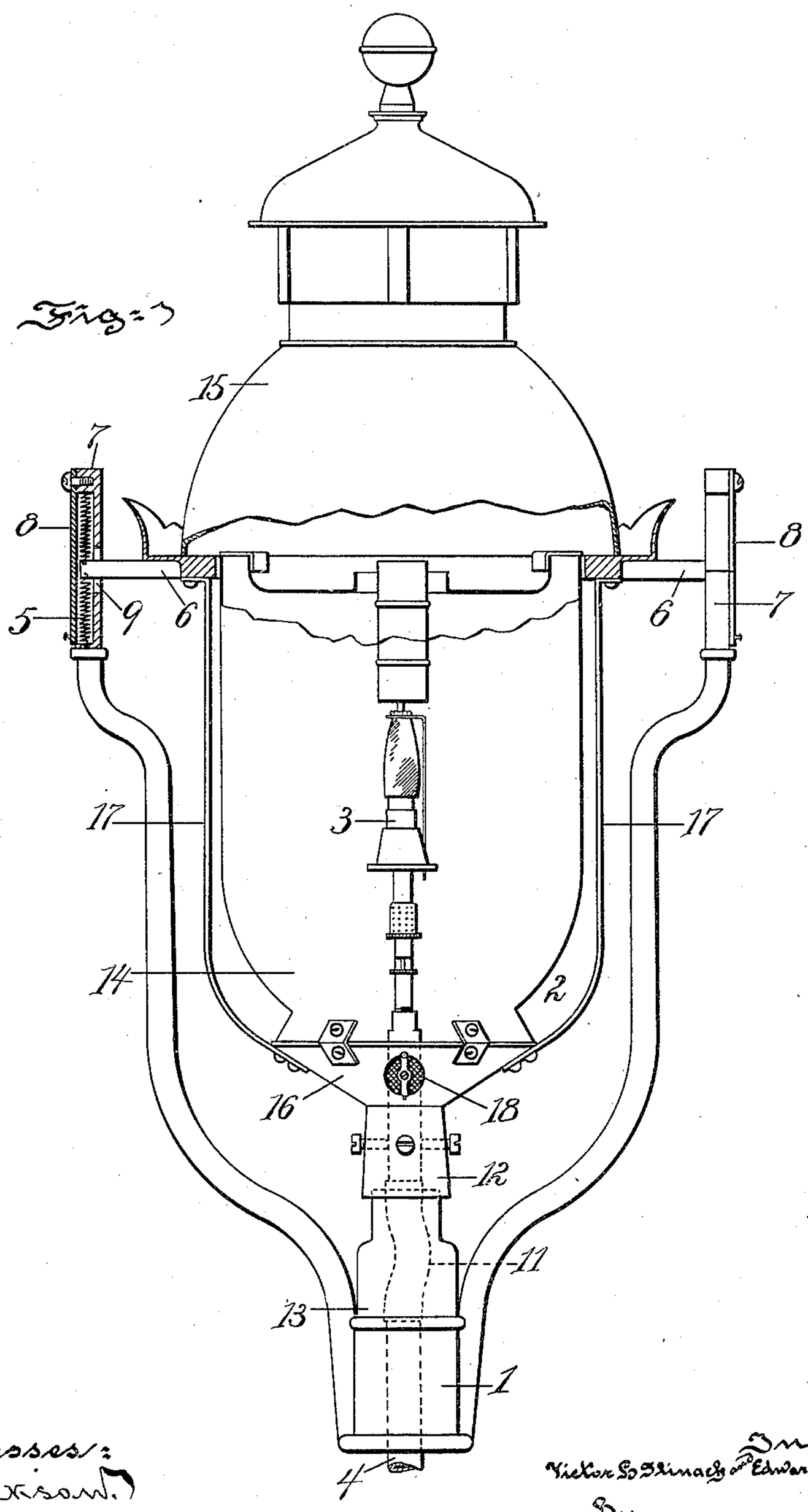
# V. H. SLINACK & E. S. SANDERSON.

## ANTIVIBRATION LAMP FOR WELSBACH OR OTHER INCANDESCENT LIGHTS.

(Application filed Mar. 22, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

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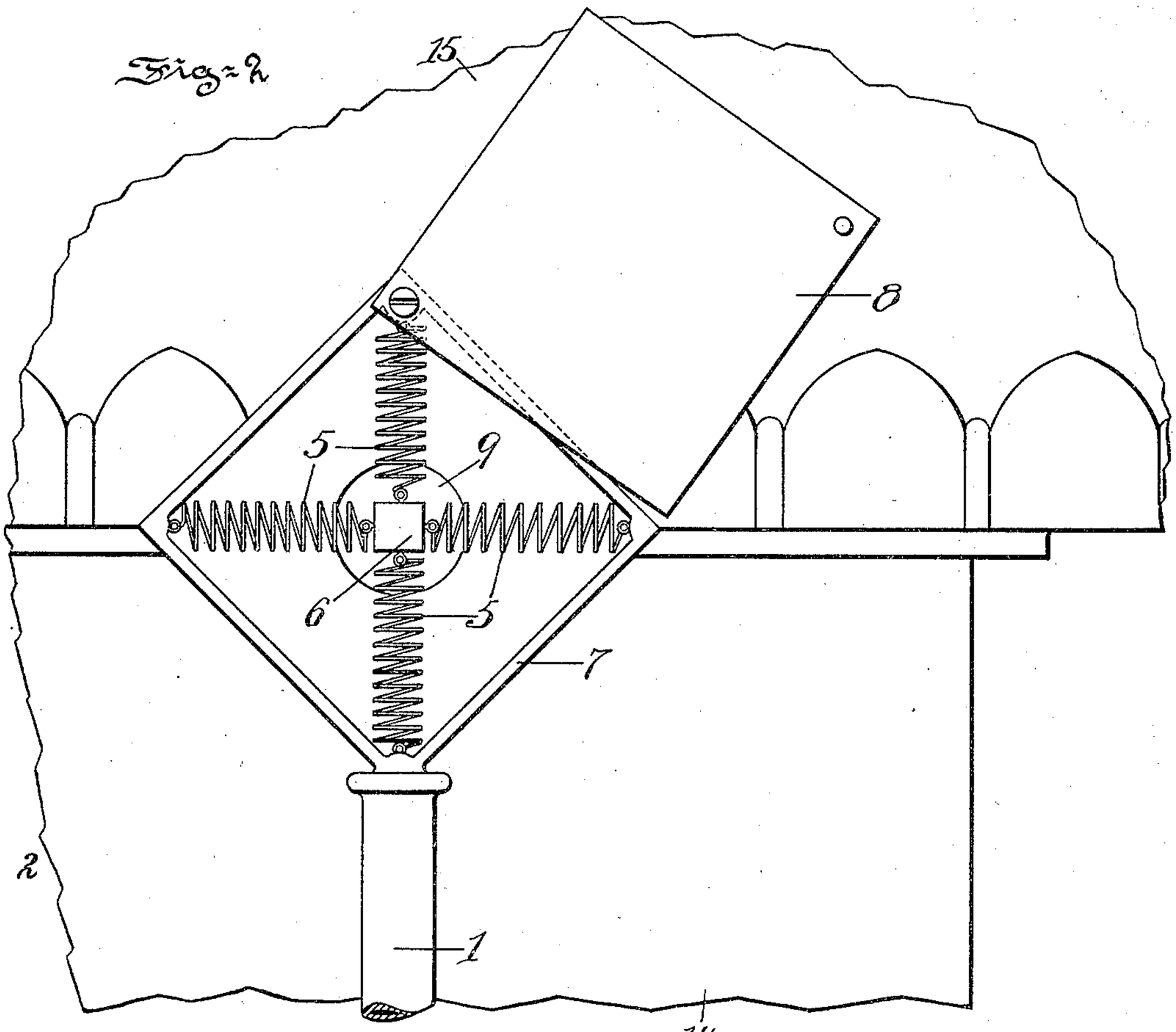
(No Model.) 2 Sheets—Sheet 2.

Fig. 2.



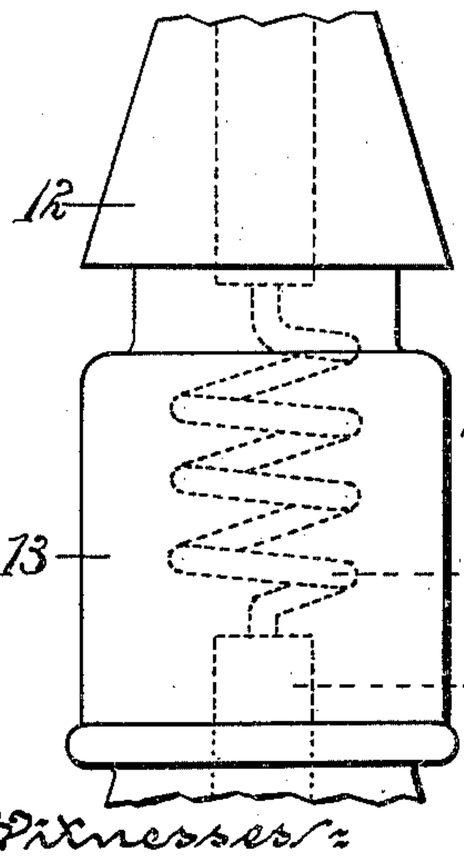




Fig. 3.

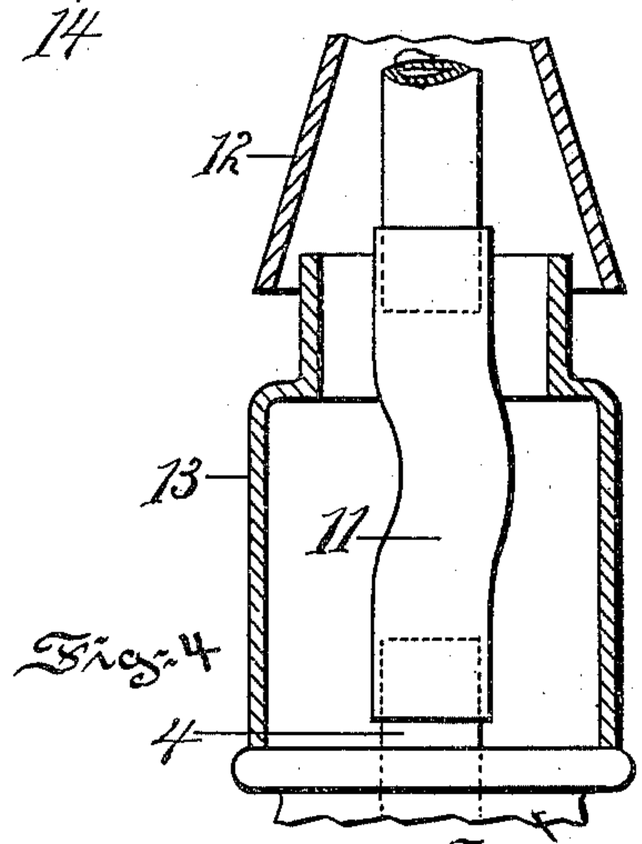



Fig. 4.

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# UNITED STATES PATENT OFFICE.

VICTOR H. SLINACK AND EDWARD S. SANDERSON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO THE PENNSYLVANIA GLOBE GAS LIGHT COMPANY, OF SAME PLACE.

## ANTIVIBRATION LAMP FOR WELSBACH OR OTHER INCANDESCENT LIGHTS.

SPECIFICATION forming part of Letters Patent No. 662,831, dated November 27, 1900.

Application filed March 22, 1899. Serial No. 710,031. (No model.)

*To all whom it may concern:*

Be it known that we, VICTOR H. SLINACK and EDWARD S. SANDERSON, citizens of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Antivibration Lamp for Welsbach or other Incandescent Lights, of which the following is a specification.

The object of the invention is to prevent breakage of Welsbach and other incandescent mantles used for outdoor and street lighting by reason of shocks, jars, vibrations, and the like to which their supports or posts are exposed.

Our invention comprises the improvements hereinafter described and claimed.

The nature, characteristic features, and scope of our invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, and in which—

Figure 1 is an elevational view of a lantern and its support embodying features of our invention. Fig. 2 is a side view drawn to an enlarged scale and illustrating the spring connection which is interposed between the lantern and its support, and Figs. 3 and 4 are views illustrating types of flexible gas connections by which gas is supplied to the burner without interfering with the action of the spring connections.

In the drawings, 1 is a support comprising arms between which the lantern 2 and its burner 3 are movably suspended. This support 1 is shown as constructed for application to an ordinary lamp-post which may be provided with a gas-supply pipe, as 4. At the upper ends of the arms of the support are located radially-arranged springs 5. One of the ends of each of these springs is secured to the arm of the support or to a suitable provision thereon, and the other ends of the springs are connected with a stud 6, projecting from the lantern. Inasmuch as these springs are arranged radially, it follows that the studs are afforded universal movement, and since the lantern and its connected parts are of considerable weight they possess inertia which, in coöperation with the spring connections, prevents sudden or violent movements of the lantern. Shocks, jars, or vibrations imparted to the lamp-support are, as it were, absorbed by the springs and are not therefore communicated to the mantle or incandescent. Thus the latter is protected from breakage and damage.

7 is a housing which may be provided around the springs and which with the movable door 8 serves to inclose them and thus protect them from exposure and make the device present a neat appearance. The inner wall of the housing 7 is provided with an opening 9, through which one of the studs 6 projects and which is large enough to afford the stud the necessary range of movement.

Since the lantern and burner are movable, use is made of a flexible connection for supplying gas from the pipe 4 or other source of supply to the burner. This flexible connection may comprise a spirally-wound metal tube 10, as shown in Fig. 3, or a section of elastic tubing 11, as of rubber, Fig. 4. To protect the flexible connection from exposure, it may be inclosed in sleeves 12 and 13, which encircle it and are relatively of such diameter that movement is afforded between them, and these sleeves may be advantageously arranged in such manner that the upper and larger one overlaps the lower and smaller one, so that they are adapted to shed water.

The construction of the lantern 2 (illustrated in the drawings) embodies a glass globe 14, supported between a dome 15 and a base 16, which are connected by means of arms or rods 17, so that the globe may be lifted or removed without disturbing the base. The base itself may be provided with a suitable door, as 18, through which a lighting torch or stick may be introduced when necessary.

In use shocks, jars, or vibrations imparted to the lamp-support 1 are taken up or absorbed by the springs 5, which are constructed and arranged to afford the lantern freedom of movement. However, since the lantern is quite heavy and possesses considerable inertia its movements are not sudden and are such as are not liable to injure the mantle or

incandescent. The described flexible gas connection does not interfere with the described action of the springs, and the result is that the mantle or incandescent is not subjected to such breakage and damage as would be encountered if the described provisions were absent.

It will be obvious to those skilled in the art to which our invention appertains that modifications may be made in details without departing from the spirit thereof. Hence we do not limit ourselves to the precise construction and arrangement of parts hereinabove set forth, and illustrated in the accompanying drawings; but,

Having thus described the nature and objects of our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A lamp comprising a support having a pair of arms each equipped at its end with a fixed housing, a lantern, and springs arranged in the housings and attached to the lantern and to the inner walls of the housings, substantially as described.

2. A lamp comprising a support having arms, housings fixed immovably on the arms and provided with apertures, a lantern provided with lugs penetrating said apertures, and springs arranged radially in the housings and connected with the inner wall thereof and with the lugs, substantially as described.

3. A lamp comprising a lantern consisting of a base and dome connected by rods and a globe interposed between the base and dome, a pair of arms rising from a support and each provided at its end with an immovable housing, and radially-arranged springs interposed between the lantern and the inner wall of the housing, substantially as described.

4. A lamp comprising arms rising from a hollow support, a lantern, springs interposed between the lantern and arms, a flexible gas connection for the lantern rising through the hollow support, and sleeves of different diameters inclosing the connection and arranged the larger above the smaller and interposed between the support and lantern and constructed to permit of motion of the latter and to shed water to the outside of the support, substantially as described.

In testimony whereof we have hereunto signed our names.

VICTOR H. SLINACK.
EDWARD S. SANDERSON.

In presence of—
W. J. JACKSON,
THEODORA HESSER.